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# Report of Analysis

### Fluorochemical Characterization of Aqueous Samples

Project Name: P0005086

MPI Research Laboratory Report No. L0018819, L0018860, L0018869,

L0018932

Initial Report Date: 11/10/09

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### Testing Laboratory

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## **Analytical Report**

### **Summary of Fluorochemical Residues in Water Samples**

Sample ID: 08130935 LW 12-5/LW 12-6 Sample 1

Analyte	Result (ng/mL)	LOQ (ng/mL)	Date Analyzed
C8 Acid- Perfluorooctanoic Acid	< 0.025 <sup>1,2</sup>	0.025	09/11/09
PFOS- Perfluorooctanesulfonate	0.0120 <sup>1,4</sup>	0.010	10/09/09
FOSA- Perfluorooctane sulfonamide	< 0.010 <sup>3,4</sup>	0.010	09/11/09
MeFOSAA- N-methylperfluoro-1-octanesulfonamidoacetic Acid	< 0.025 <sup>5</sup>	0.025	09/29/09
EtFOSAA- N-ethylperfluoro-1-octanesulfonamidoacetic Acid	< 0.025	0.025	09/29/09
MeFOSE- 2-(N-methylperfluoro-1-octanesulfonamido)-ethanol	< 0.025	0.025	09/29/09
EtFOSE- 2-(N-ethylperfluoro-1-octanesulfonamido)-ethanol	< 0.025	0.025	09/29/09

<sup>&</sup>lt;sup>1</sup> The Low Field Matrix Spike recovery was outside the acceptance criteria of 70-130%.

<sup>&</sup>lt;sup>2</sup> The lowest calibration standard (0.005 ng/mL) was excluded from the calculation of the calibration curve because the average peak area of the method blanks was greater than 50% of the standard's peak area, resulting in an increased LOQ.

<sup>&</sup>lt;sup>3</sup> The Low Field Matrix Spike recovery was outside the QC acceptance criteria of 50-150%, therefore the data is considered not reportable.

<sup>&</sup>lt;sup>4</sup> The High Field Matrix Spike recovery was outside the acceptance criteria of 70-130%.

<sup>&</sup>lt;sup>5</sup> The Laboratory Matrix Spike recovery was outside the acceptance criteria of 70-130%.

### **Analytical Report**

## **Summary of Fluorochemical Residues in Water Samples**

Sample ID: 08130935 LW 12-5/LW 12-6 Sample 1 Dup

Analyte	Result (ng/mL)	LOQ (ng/mL)	Date Analyzed
C8 Acid- Perfluorooctanoic Acid	< 0.025 <sup>1,2</sup>	0.025	09/11/09
PFOS- Perfluorooctanesulfonate	< 0.0101,4	0.010	10/09/09
FOSA- Perfluorooctane sulfonamide	< 0.010 <sup>3,4</sup>	0.010	09/11/09
MeFOSAA- N-methylperfluoro-1-octanesulfonamidoacetic Acid	< 0.025 <sup>5</sup>	0.025	09/29/09
EtFOSAA- N-ethylperfluoro-1-octanesulfonamidoacetic Acid	< 0.025	0.025	09/29/09
MeFOSE- 2-(N-methylperfluoro-1-octanesulfonamido)-ethanol	< 0.025	0.025	09/29/09
EtFOSE- 2-(N-ethylperfluoro-1-octanesulfonamido)-ethanol	< 0.025	0.025	09/29/09

<sup>&</sup>lt;sup>1</sup> The Low Field Matrix Spike recovery was outside the acceptance criteria of 70-130%.

<sup>&</sup>lt;sup>2</sup> The lowest calibration standard (0.005 ng/mL) was excluded from the calculation of the calibration curve because the average peak area of the method blanks was greater than 50% of the standard's peak area, resulting in an increased LOQ.

<sup>&</sup>lt;sup>3</sup> The Low Field Matrix Spike recovery was outside the QC acceptance criteria of 50-150%, therefore the data is considered not reportable.

 $<sup>^4</sup>$ The High Field Matrix Spike recovery was outside the acceptance criteria of 70-130%.

<sup>&</sup>lt;sup>5</sup> The Laboratory Matrix Spike recovery was outside the acceptance criteria of 70-130%.



# **Analytical Report**

### **Summary of Fluorochemical Residues in Water Samples**

Sample ID: 08130936 LW 12-5/LW 12-6 Sample 2

Analyte	Result (ng/mL)	LOQ (ng/mL)	Date Analyzed
C8 Acid- Perfluorooctanoic Acid	< 0.025 <sup>1</sup>	0.025	09/11/09
PFOS- Perfluorooctanesulfonate	< 0.010 <sup>3</sup>	0.010	10/09/09
FOSA- Perfluorooctane sulfonamide	< 0.010 <sup>2,3</sup>	0.010	09/11/09
MeFOSAA- N-methylperfluoro-1-octanesulfonamidoacetic Acid	< 0.025	0.025	09/29/09
EtFOSAA- N-ethylperfluoro-1-octanesulfonamidoacetic Acid	< 0.025	0.025	09/29/09
MeFOSE- 2-(N-methylperfluoro-1-octanesulfonamido)-ethanol	< 0.025	0.025	09/29/09
EtFOSE- 2-(N-ethylperfluoro-1-octanesulfonamido)-ethanol	< 0.025	0.025	09/29/09

<sup>&</sup>lt;sup>1</sup> The lowest calibration standard (0.005 ng/mL) was excluded from the calculation of the calibration curve because the average peak area of the method blanks was greater than 50% of the standard's peak area, resulting in an increased LOQ.

<sup>&</sup>lt;sup>2</sup> The Low Field Matrix Spike recovery was outside the QC acceptance criteria of 50-150%, therefore the data is considered not reportable.

<sup>&</sup>lt;sup>3</sup> The High Field Matrix Spike recovery was outside the acceptance criteria of 70-130%.



# **Analytical Report**

## **Summary of Fluorochemical Residues in Water Samples**

Sample ID: 08130936 LW 12-5/LW 12-6 Sample 2 Dup

Analyte	Result (ng/mL)	LOQ (ng/mL)	Date Analyzed
C8 Acid- Perfluorooctanoic Acid	< 0.025 <sup>1</sup>	0.025	09/11/09
PFOS- Perfluorooctanesulfonate	< 0.010 <sup>3</sup>	0.010	10/09/09
FOSA- Perfluorooctane sulfonamide	< 0.010 <sup>2,3</sup>	0.010	09/11/09
MeFOSAA- N-methylperfluoro-1-octanesulfonamidoacetic Acid	< 0.025	0.025	09/29/09
EtFOSAA- N-ethylperfluoro-1-octanesulfonamidoacetic Acid	< 0.025	0.025	09/29/09
MeFOSE- 2-(N-methylperfluoro-1-octanesulfonamido)-ethanol	< 0.025	0.025	09/29/09
EtFOSE- 2-(N-ethylperfluoro-1-octanesulfonamido)-ethanol	< 0.025	0.025	09/29/09

<sup>&</sup>lt;sup>1</sup> The lowest calibration standard (0.005 ng/mL) was excluded from the calculation of the calibration curve because the average peak area of the method blanks was greater than 50% of the standard's peak area, resulting in an increased LOQ.

<sup>&</sup>lt;sup>2</sup> The Low Field Matrix Spike recovery was outside the QC acceptance criteria of 50-150%, therefore the data is considered not reportable.

<sup>&</sup>lt;sup>3</sup> The High Field Matrix Spike recovery was outside the acceptance criteria of 70-130%.



# **Analytical Report**

# **Summary of Fluorochemical Residues in Water Samples**

#### Sample ID: 08130938 LW 12-5/LW 12-6 Sample 3

Analyte	Result (ng/mL)	LOQ (ng/mL)	Date Analyzed
C8 Acid- Perfluorooctanoic Acid	< 0.025 <sup>1,2</sup>	0.025	09/11/09
PFOS- Perfluorooctanesulfonate	0.0126 <sup>1,3</sup>	0.010	10/09/09
FOSA- Perfluorooctane sulfonamide	< 0.010 <sup>4,5</sup>	0.010	09/11/09
MeFOSAA- N-methylperfluoro-1-octanesulfonamidoacetic Acid	< 0.025	0.025	09/29/09
EtFOSAA- N-ethylperfluoro-1-octanesulfonamidoacetic Acid	< 0.025	0.025	09/29/09
MeFOSE- 2-(N-methylperfluoro-1-octanesulfonamido)-ethanol	< 0.025	0.025	09/29/09
EtFOSE- 2-(N-ethylperfluoro-1-octanesulfonamido)-ethanol	< 0.025	0.025	09/29/09

<sup>&</sup>lt;sup>1</sup> The Low Field Matrix Spike recovery was outside the acceptance criteria of 70-130%.

<sup>&</sup>lt;sup>2</sup> The lowest calibration standard (0.005 ng/mL) was excluded from the calculation of the calibration curve because the average peak area of the method blanks was greater than 50% of the standard's peak area, resulting in an increased LOQ.

<sup>&</sup>lt;sup>3</sup> The High Field Matrix recovery was outside the QC acceptance criteria of 50-150%. The Low Field Matrix recovery was within the acceptance criteria of 50-150% and the spiking concentration is within the Exhibit C criteria of 0.5 to 10 times endogenous sample levels, this data is considered reportable.

<sup>&</sup>lt;sup>4</sup>The High Field Matrix Spike recovery was outside the acceptance criteria of 70-130%.

<sup>&</sup>lt;sup>5</sup> The Low Field Matrix Spike recovery was outside the QC acceptance criteria of 50-150%, therefore the data is considered not reportable.

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## **Analytical Report**

## **Summary of Fluorochemical Residues in Water Samples**

### Sample ID: 08130938 LW 12-5/LW 12-6 Sample 3 Dup

Analyte	Result (ng/mL)	LOQ (ng/mL)	Date Analyzed
C8 Acid- Perfluorooctanoic Acid	< 0.025 <sup>1,2</sup>	0,025	09/11/09
PFOS- Perfluorooctanesulfonate	< 0.010 <sup>1,3</sup>	0.010	10/09/09
FOSA- Perfluorooctane sulfonamide	< 0.010 <sup>4,5</sup>	0.010	09/11/09
MeFOSAA- N-methylperfluoro-1-octanesulfonamidoacetic Acid	< 0.025	0.025	09/29/09
EtFOSAA- N-ethylperfluoro-1-octanesulfonamidoacetic Acid	< 0.025	0.025	09/29/09
MeFOSE- 2-(N-methylperfluoro-1-octanesulfonamido)-ethanol	< 0.025	0.025	09/29/09
EtFOSE- 2-(N-ethylperfluoro-1-octanesulfonamido)-ethanol	< 0.025	0.025	09/29/09

<sup>&</sup>lt;sup>1</sup> The Low Field Matrix Spike recovery was outside the acceptance criteria of 70-130%.

<sup>&</sup>lt;sup>2</sup> The lowest calibration standard (0.005 ng/mL) was excluded from the calculation of the calibration curve because the average peak area of the method blanks was greater than 50% of the standard's peak area, resulting in an increased LOQ.

<sup>&</sup>lt;sup>3</sup> The High Field Matrix recovery was outside the QC acceptance criteria of 50-150%. The Low Field Matrix recovery was within the acceptance criteria of 50-150% and the spiking concentration is within the Exhibit C criteria of 0.5 to 10 times endogenous sample levels, this data is considered reportable.

<sup>&</sup>lt;sup>4</sup> The High Field Matrix Spike recovery was outside the acceptance criteria of 70-130%.

<sup>&</sup>lt;sup>5</sup> The Low Field Matrix Spike recovery was outside the QC acceptance criteria of 50-150%, therefore the data is considered not reportable.



# **Analytical Report**

### Summary of Fluorochemical Residues in Water Samples

Sample ID: 08130933 MG 17-3 Sample 4

Analy <b>te</b>	Result (ng/mL)	LOQ (ng/mL)	Date Analyzed
C8 Acid- Perfluorooctanoic Acid	< 0.025 <sup>1</sup>	0.025	09/11/09
PFOS- Perfluorooctanesulfonate	< 0.010 <sup>3</sup>	0.010	10/09/09
FOSA- Perfluorooctane sulfonamide	< 0.010 <sup>2,3</sup>	0.010	09/11/09
MeFOSAA- N-methylperfluoro-1-octanesulfonamidoacetic Acid	< 0.025	0.025	09/30/09
EtFOSAA- N-ethylperfluoro-1-octanesulfonamidoacetic Acid	< 0.025	0.025	09/30/09
MeFOSE- 2-(N-methylperfluoro-1-octanesulfonamido)-ethanol	< 0.025	0.025	09/30/09
EtFOSE- 2-(N-ethylperfluoro-1-octanesulfonamido)-ethanol	< 0.025	0.025	09/30/09

<sup>&</sup>lt;sup>1</sup> The lowest calibration standard (0.005 ng/mL) was excluded from the calculation of the calibration curve because the average peak area of the method blanks was greater than 50% of the standard's peak area, resulting in an increased LOQ.

<sup>&</sup>lt;sup>2</sup> The Low Field Matrix Spike recovery was outside the QC acceptance criteria of 50-150%, therefore the data is considered not reportable.

<sup>&</sup>lt;sup>3</sup> The High Field Matrix Spike recovery was outside the acceptance criteria of 70-130%.



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## **Analytical Report**

## **Summary of Fluorochemical Residues in Water Samples**

Sample ID: 08130933 MG 17-3 Sample 4 Dup

Analyte	Result (ng/mL)	LOQ (ng/mL)	Date Analyzed
C8 Acid- Perfluorooctanoic Acid	< 0.025 <sup>1</sup>	0.025	09/11/09
. PFOS- Perfluorooctanesulfonate	< 0.010³	0.010	10/09/09
FOSA- Perfluorooctane sulfonamide	< 0.010 <sup>2,3</sup>	0.010	09/11/09
MeFOSAA- N-methylperfluoro-1-octanesulfonamidoacetic Acid	< 0.025	0.025	09/30/09
EtFOSAA- N-ethylperfluoro-1-octanesulfonamidoacetic Acid	< 0.025	0.025	09/30/09
MeFOSE- 2-(N-methylperfluoro-1-octanesulfonamido)-ethanol	< 0.025	0.025	09/30/09
EtFOSE- 2-(N-ethylperfluoro-1-octanesulfonamido)-ethanol	< 0.025	0.025	09/30/09

<sup>&</sup>lt;sup>1</sup> The lowest calibration standard (0.005 ng/mL) was excluded from the calculation of the calibration curve because the average peak area of the method blanks was greater than 50% of the standard's peak area, resulting in an increased LOQ.

<sup>&</sup>lt;sup>2</sup> The Low Field Matrix Spike recovery was outside the QC acceptance criteria of 50-150%, therefore the data is considered not reportable.

<sup>&</sup>lt;sup>3</sup> The High Field Matrix Spike recovery was outside the acceptance criteria of 70-130%.



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## **Analytical Report**

### **Summary of Fluorochemical Residues in Water Samples**

Sample ID: 08130932 MG 17-3 Sample 5

Analyto	Result (ng/mL)	LOQ (ng/mL)	Date Analyzed
C8 Acid- Perfluorooctanoic Acid	< 0.025¹	0.025	09/12/09
PFOS- Perfluorooctanesulfonate	0.0173 <sup>3,5</sup>	0.010	10/09/09
FOSA- Perfluorooctane sulfonamide	< 0.010 <sup>2,4</sup>	0.010	09/12/09
MeFOSAA- N-methylperfluoro-1-octanesulfonamidoacetic Acid	< 0.025	0.025	09/30/09
EtFOSAA- N-ethylperfluoro-1-octanesulfonamidoacetic Acid	< 0.025	0.025	09/30/09
MeFOSE- 2-(N-methylperfluoro-1-octanesulfonamido)-ethanol	< 0.025	0.025	09/30/09
EtFOSE- 2-(N-ethylperfluoro-1-octanesulfonamido)-ethanol	< 0.025	0.025	09/30/09

<sup>&</sup>lt;sup>1</sup> The lowest calibration standard (0.005 ng/mL) was excluded from the calculation of the calibration curve because the average peak area of the method blanks was greater than 50% of the standard's peak area, resulting in an increased LOQ.

<sup>&</sup>lt;sup>2</sup> The Low Field Matrix Spike recovery was outside the QC acceptance criteria of 50-150%, therefore the data is considered not reportable.

<sup>&</sup>lt;sup>3</sup> The High Field Matrix Spike recovery was outside the acceptance criteria of 70-130%.

<sup>&</sup>lt;sup>4</sup> The High Field Matrix Spike recovery was outside the QC acceptance criteria of 50-150%, therefore the data is considered not reportable.

<sup>&</sup>lt;sup>5</sup> Outside the QC acceptance criteria of <20% relative percent difference (RPD) of duplicate samples



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## **Analytical Report**

### **Summary of Fluorochemical Residues in Water Samples**

Sample ID: 08130932 MG 17-3 Sample 5 Dup

Analyte	Result (ng/mL)	LOQ (ng/mL)	Date Analyzed
C8 Acid- Perfluorooctanoic Acid	< 0.025 <sup>1</sup>	0.025	09/12/09
PFOS- Perfluorooctanesulfonate	0.0116 <sup>3,5</sup>	0.010	10/09/09
FOSA- Perfluorooctane sulfonamide	< 0.010 <sup>2,4</sup>	0.010	09/12/09
MeFOSAA- N-methylperfluoro-1-octanesulfonamidoacetic Acid	< 0.025	0.025	09/30/09
EtFOSAA- N-ethylperfluoro-1-octanesulfonamidoacetic Acid	< 0.025	0.025	09/30/09
MeFOSE- 2-(N-methylperfluoro-1-octanesulfonamido)-ethanol	< 0.025	0.025	09/30/09
EtFOSE- 2-(N-ethylperfluoro-1-octanesulfonamido)-ethanol	< 0.025	0.025	09/30/09

<sup>&</sup>lt;sup>1</sup> The lowest calibration standard (0.005 ng/mL) was excluded from the calculation of the calibration curve because the average peak area of the method blanks was greater than 50% of the standard's peak area, resulting in an increased LOQ.

<sup>&</sup>lt;sup>2</sup> The Low Field Matrix Spike recovery was outside the QC acceptance criteria of 50-150%, therefore the data is considered not reportable.

<sup>&</sup>lt;sup>3</sup> The High Field Matrix Spike recovery was outside the acceptance criteria of 70-130%.

<sup>&</sup>lt;sup>4</sup> The High Field Matrix Spike recovery was outside the QC acceptance criteria of 50-150%, therefore the data is considered not reportable.

<sup>&</sup>lt;sup>5</sup> Outside the QC acceptance criteria of <20% relative percent difference (RPD) of duplicate samples



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## **Analytical Report**

### **Summary of Fluorochemical Residues in Water Samples**

Sample ID: 08180951 MG11 Sample 6

Analyte	Result (ng/mL)	LOQ (ng/mL)	Date Analyzed
C8 Acid- Perfluorooctanoic Acid	< 0.025 <sup>2</sup>	0.025	09/15/09
PFOS- Perfluorooctanesulfonate	0.0185 <sup>1,5,4</sup>	0.010	10/09/09
FOSA- Perfluorooctane sulfonamide	< 0.010 <sup>3,4</sup>	0.010	09/15/09
MeFOSAA- N-methylperfluoro-1-octanesulfonamidoacetic Acid	< 0.025	0.025	09/30/09
EtFOSAA- N-ethylperfluoro-1-octanesulfonamidoacetic Acid	< 0.025	0.025	09/30/09
MeFOSE- 2-(N-methylperfluoro-1-octanesulfonamido)-ethanol	< 0.025	0.025	09/30/09
EtFOSE- 2-(N-ethylperfluoro-1-octanesulfonamido)-ethanol	< 0.025	0.025	09/30/09

<sup>&</sup>lt;sup>1</sup> The Low Field Matrix Spike recovery was outside the acceptance criteria of 70-130%.

<sup>&</sup>lt;sup>2</sup> The lowest calibration standard (0.005 ng/mL) was excluded from the calculation of the calibration curve because the average peak area of the method blanks was greater than 50% of the standard's peak area, resulting in an increased LOQ.

<sup>&</sup>lt;sup>3</sup> The High Field Matrix Spike recovery was outside the QC acceptance criteria of 50-150%, therefore the data is considered not reportable.

<sup>&</sup>lt;sup>4</sup> The Low Field Matrix Spike recovery was outside the QC acceptance criteria of 50-150%, therefore the data is considered not reportable.

<sup>&</sup>lt;sup>5</sup> Outside the QC acceptance criteria of <20% relative percent difference (RPD) of duplicate samples

<sup>&</sup>lt;sup>6</sup> The High Field Matrix recovery was outside the QC acceptance criteria of 50-150%. The Low Field Matrix recovery was within the acceptance criteria of 50-150% and the spiking concentration is within the Exhibit C criteria of 0.5 to 10 times endogenous sample levels, this data is considered reportable.



### **Analytical Report**

### **Summary of Fluorochemical Residues in Water Samples**

#### Sample ID: 08180951 MG11 Sample 6 Dup

Analyte	Result (ng/mL)	LOQ (ng/mL)	Date Analyzed
C8 Acid- Perfluorooctanoic Acid	< 0.025²	0.025	09/15/09
PFOS- Perfluorooctanesulfonate	0.0105 <sup>1,5,6</sup>	0.010	10/09/09
FOSA- Perfluorooctane sulfonamide	< 0.010 <sup>3,4</sup>	0.010	09/15/09
MeFOSAA- N-methylperfluoro-1-octanesulfonamidoacetic Acid	< 0.025	0.025	09/30/09
EtFOSAA- N-ethylperfluoro-1-octanesulfonamidoacetic Acid	< 0.025	0.025	09/30/09
MeFOSE- 2-(N-methylperfluoro-1-octanesulfonamido)-ethanol	< 0.025	0.025	09/30/09
EtFOSE- 2-(N-ethylperfluoro-1-octanesulfonamido)-ethanol	< 0.025	0.025	09/30/09

<sup>&</sup>lt;sup>1</sup>The Low Field Matrix Spike recovery was outside the acceptance criteria of 70-130%.

<sup>&</sup>lt;sup>2</sup> The lowest calibration standard (0.005 ng/mL) was excluded from the calculation of the calibration curve because the average peak area of the method blanks was greater than 50% of the standard's peak area, resulting in an increased LOQ.

<sup>&</sup>lt;sup>3</sup> The High Field Matrix Spike recovery was outside the QC acceptance criteria of 50-150%, therefore the data is considered not reportable.

<sup>&</sup>lt;sup>4</sup> The Low Field Matrix Spike recovery was outside the QC acceptance criteria of 50-150%, therefore the data is considered not reportable.

<sup>&</sup>lt;sup>5</sup> Outside the QC acceptance criteria of <20% relative percent difference (RPD) of duplicate samples

<sup>&</sup>lt;sup>6</sup> The High Field Matrix recovery was outside the QC acceptance criteria of 50-150%. The Low Field Matrix recovery was within the acceptance criteria of 50-150% and the spiking concentration is within the Exhibit C criteria of 0.5 to 10 times endogenous sample levels, this data is considered reportable.



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# **Analytical Report**

### **Summary of Fluorochemical Residues in Water Samples**

Sample ID: <u>08180948 MG11 Sample 7</u>

Analyte	Result (ng/mL)	LOQ (ng/mL)	Date Analyzed
C8 Acid- Perfluorooctanoic Acid	< 0.025 <sup>1</sup>	0.025	09/15/09
PFOS- Perfluorooctanesulfonate	0.02154	0.010	10/09/09
FOSA- Perfluorooctane sulfonamide	< 0.010 <sup>2,3</sup>	0.010	09/15/09
MeFOSAA- N-methylperfluoro-1-octanesulfonamidoacetic Acid	< 0.025	0.025	09/30/09
EtFOSAA- N-ethylperfluoro-1-octanesulfonamidoacetic Acid	< 0.025	0.025	09/30/09
MeFOSE- 2-(N-methylperfluoro-1-octanesulfonamido)-ethanol	< 0.025	0.025	09/30/09
EtFOSE- 2-(N-ethylperfluoro-1-octanesulfonamido)-ethanol	< 0.025	0.025	09/30/09

<sup>&</sup>lt;sup>1</sup> The lowest calibration standard (0.005 ng/mL) was excluded from the calculation of the calibration curve because the average peak area of the method blanks was greater than 50% of the standard's peak area, resulting in an increased LOQ.

<sup>&</sup>lt;sup>2</sup> The High Field Matrix Spike recovery was outside the QC acceptance criteria of 50-150%, therefore the data is considered not reportable.

<sup>&</sup>lt;sup>3</sup> The Low Field Matrix Spike recovery was outside the QC acceptance criteria of 50-150%, therefore the data is considered not reportable.

<sup>&</sup>lt;sup>4</sup>The High Field Matrix recovery was outside the QC acceptance criteria of 50-150%. The Low Field Matrix recovery was within the acceptance criteria of 50-150% and the spiking concentration is within the Exhibit C criteria of 0.5 to 10 times endogenous sample levels, this data is considered reportable.



### **Analytical Report**

### Summary of Fluorochemical Residues in Water Samples

#### Sample ID: 08180948 MG11 Sample 7 Dup

Analyte	Result (ng/mL)	LOQ (ng/mL)	Date Analyzed
C8 Acid- Perfluorooctanoic Acid	0.027 <b>8¹</b>	0.025	09/15/09
PFOS- Perfluorooctanesulfonate	0.0196 <sup>4</sup>	0.010	10/09/09
FOSA- Perfluorooctane sulfonamide	< 0.010 <sup>2,3</sup>	0.010	09/15/09
MeFOSAA- N-methylperfluoro-1-octanesulfonamidoacetic Acid	< 0.025	0.025	09/30/09
EtFOSAA- N-ethylperfluoro-1-octanesulfonamidoacetic Acid	< 0.025	0.025	09/30/09
MeFOSE- 2-(N-methylperfluoro-1-octanesulfonamido)-ethanol	< 0.025	0.025	09/30/09
EtFOSE- 2-(N-ethylperfluoro-1-octanesulfonamido)-ethanol	< 0.025	0.025	09/30/09

<sup>&</sup>lt;sup>1</sup> The lowest calibration standard (0.005 ng/mL) was excluded from the calculation of the calibration curve because the average peak area of the method blanks was greater than 50% of the standard's peak area, resulting in an increased LOQ.

<sup>&</sup>lt;sup>2</sup> The High Field Matrix Spike recovery was outside the QC acceptance criteria of 50-150%, therefore the data is considered not reportable.

<sup>&</sup>lt;sup>3</sup> The Low Field Matrix Spike recovery was outside the QC acceptance criteria of 50-150%, therefore the data is considered not reportable.

<sup>&</sup>lt;sup>4</sup>The High Field Matrix recovery was outside the QC acceptance criteria of 50-150%. The Low Field Matrix recovery was within the acceptance criteria of 50-150% and the spiking concentration is within the Exhibit C criteria of 0.5 to 10 times endogenous sample levels, this data is considered reportable.



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# **Analytical Report**

### **Summary of Fluorochemical Residues in Water Samples**

Sample ID: 08140928 LW 17-4/LW 17-5 Sample 8

Analyte	Result (ng/mL)	LOQ (ng/mL)	Date Analyzed
C8 Acid- Perfluorooctanoic Acid	< 0.025 <sup>1,2</sup>	0.025	09/15/09
PFOS- Perfluorooctanesulfonate	0.0144 <sup>1,5</sup>	0.010	10/09/09
FOSA- Perfluorooctane sulfonamide	< 0.010 <sup>3,4</sup>	0.010	09/15/09
MeFOSAA- N-methylperfluoro-1-octanesulfonamidoacetic Acid	< 0.025	0.025	09/30/09
EtFOSAA- N-ethylperfluoro-1-octanesulfonamidoacetic Acid	< 0.025	0.025	09/30/09
MeFOSE- 2-(N-methylperfluoro-1-octanesulfonamido)-ethanol	< 0.025	0.025	09/30/09
EtFOSE- 2-(N-ethylperfluoro-1-octanesulfonamido)-ethanol	< 0.025	0.025	09/30/09

<sup>&</sup>lt;sup>1</sup> The Low Field Matrix Spike recovery was outside the acceptance criteria of 70-130%.

<sup>&</sup>lt;sup>2</sup> The lowest calibration standard (0.005 ng/mL) was excluded from the calculation of the calibration curve because the average peak area of the method blanks was greater than 50% of the standard's peak area, resulting in an increased LOQ.

<sup>&</sup>lt;sup>3</sup> The High Field Matrix Spike recovery was outside the QC acceptance criteria of 50-150%, therefore the data is considered not reportable.

<sup>&</sup>lt;sup>4</sup> The Low Field Matrix Spike recovery was outside the QC acceptance criteria of 50-150%, therefore the data is considered not reportable.

<sup>&</sup>lt;sup>5</sup> The High Field Matrix Spike recovery was outside the acceptance criteria of 70-130%.

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**Analytical Report** 

### **Summary of Fluorochemical Residues in Water Samples**

Sample ID: <u>08140928 LW 17-4/LW 17-5 Sample 8 Dup</u>

Analyte	Result (ng/mL)	LOQ (ng/mL)	Date Analyzed
C8 Acid- Perfluorooctanoic Acid	< 0.025 <sup>1,2</sup>	0.025	09/15/09
PFOS- Perfluorooctanesulfonate	< 0.010 <sup>1,5</sup>	0.010	10/09/09
FOSA- Perfluorooctane sulfonamide	< 0.010 <sup>3,4</sup>	0.010	09/15/09
MeFOSAA- N-methylperfluoro-1-octanesulfonamidoacetic Acid	< 0.025	0.025	09/30/09
EtFOSAA- N-ethylperfluoro-1-octanesulfonamidoacetic Acid	< 0.025	0.025	09/30/09
MeFOSE- 2-(N-methylperfluoro-1-octanesulfonamido)-ethanol	< 0.025	0.025	09/30/09
EtFOSE- 2-(N-ethylperfluoro-1-octanesulfonamido)-ethanol	< 0.025	0.025	09/30/09

<sup>&</sup>lt;sup>1</sup> The Low Field Matrix Spike recovery was outside the acceptance criteria of 70-130%.

<sup>&</sup>lt;sup>2</sup> The lowest calibration standard (0.005 ng/mL) was excluded from the calculation of the calibration curve because the average peak area of the method blanks was greater than 50% of the standard's peak area, resulting in an increased LOQ.

<sup>&</sup>lt;sup>3</sup> The High Field Matrix Spike recovery was outside the QC acceptance criteria of 50-150%, therefore the data is considered not reportable.

<sup>&</sup>lt;sup>4</sup> The Low Field Matrix Spike recovery was outside the QC acceptance criteria of 50-150%, therefore the data is considered not reportable.

<sup>&</sup>lt;sup>5</sup> The High Field Matrix Spike recovery was outside the acceptance criteria of 70-130%.



# **Analytical Report**

## **Summary of Fluorochemical Residues in Water Samples**

### Sample ID: 08180949 MG11 Sample 9

Analyte	Result (ng/mL)	LOQ (ng/mL)	Date Analyzed
C8 Acid- Perfluorooctanoic Acid	< 0.025 <sup>2,4</sup>	0.025	09/15/09
PFOS- Perfluorooctanesulfonate	0.01971.4	0.010	10/09/09
FOSA- Perfluorooctane sulfonamide	< 0.010 <sup>3,4</sup>	0.010	09/15/09
MeFOSAA- N-methylperfluoro-1-octanesulfonamidoacetic Acid	< 0.025	0.025	09/30/09
EtFOSAA- N-ethylperfluoro-1-octanesulfonamidoacetic Acid	< 0.025	0.025	09/30/09
MeFOSE- 2-(N-methylperfluoro-1-octanesulfonamido)-ethanol	< 0.025	0.025	09/30/09
EtFOSE- 2-(N-ethylperfluoro-1-octanesulfonamido)-ethanol	< 0.025	0.025	09/30/09

<sup>&</sup>lt;sup>1</sup> The Low Field Matrix Spike recovery was outside the acceptance criteria of 70-130%.

<sup>&</sup>lt;sup>2</sup> The lowest calibration standard (0.005 ng/mL) was excluded from the calculation of the calibration curve because the average peak area of the method blanks was greater than 50% of the standard's peak area, resulting in an increased LOQ.

<sup>&</sup>lt;sup>3</sup> The Low Field Matrix Spike recovery was outside the QC acceptance criteria of 50-150%, therefore the data is considered not reportable.

<sup>&</sup>lt;sup>4</sup> The High Field Matrix Spike recovery was outside the acceptance criteria of 70-130%.



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# **Analytical Report**

### **Summary of Fluorochemical Residues in Water Samples**

Sample ID: 08180949 MG11 Sample 9 Dup

Analyte	Result (ng/mL)	LOQ (ng/mL)	Date Analyzed
C8 Acid- Perfluorooctanoic Acid	< 0.025 <sup>2,4</sup>	0.025	09/15/09
PFOS- Perfluorooctanesulfonate	0.0215 <sup>1,4</sup>	0,010	10/09/09
FOSA- Perfluorooctane sulfonamide	< 0.010 <sup>3,4</sup>	0.010	09/15/09
MeFOSAA- N-methylperfluoro-1-octanesulfonamidoacetic Acid	< 0.025	0.025	09/30/09
EtFOSAA- N-ethylperfluoro-1-octanesulfonamidoacetic Acid	< 0.025	0.025	09/30/09
MeFOSE- 2-(N-methylperfluoro-1-octanesulfonamido)-ethanol	< 0.025	0.025	09/30/09
EtFOSE- 2-(N-ethylperfluoro-1-octanesulfonamido)-ethanol	< 0.025	0.025	09/30/09

<sup>&</sup>lt;sup>1</sup> The Low Field Matrix Spike recovery was outside the acceptance criteria of 70-130%.

<sup>&</sup>lt;sup>2</sup> The lowest calibration standard (0.005 ng/mL) was excluded from the calculation of the calibration curve because the average peak area of the method blanks was greater than 50% of the standard's peak area, resulting in an increased LOQ.

<sup>&</sup>lt;sup>3</sup> The Low Field Matrix Spike recovery was outside the QC acceptance criteria of 50-150%, therefore the data is considered not reportable.

<sup>&</sup>lt;sup>4</sup> The High Field Matrix Spike recovery was outside the acceptance criteria of 70-130%.



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# **Analytical Report**

### **Summary of Fluorochemical Residues in Water Samples**

Sample ID: 08190950 MG11 Sample 10

Analyte	Result (ng/mL)	LOQ (ng/mL)	Date Analyzed
C8 Acid- Perfluorooctanoic Acid	< 0.025 <sup>1,4</sup>	0.025	09/15/09
PFOS- Perfluorooctanesulfonate	0.0446 <sup>2,3,5</sup>	0.010	10/09/09
FOSA- Perfluorooctane sulfonamide	< 0.010 <sup>3,4</sup>	0.010	09/15/09
MeFOSAA- N-methylperfluoro-1-octanesulfonamidoacetic Acid	< 0.025	0.025	09/30/09
EtFOSAA- N-ethylperfluoro-1-octanesulfonamidoacetic Acid	< 0.025	0.025	09/30/09
MeFOSE- 2-(N-methylperfluoro-1-octanesulfonamido)-ethanol	< 0.025	0.025	09/30/09
EtFOSE- 2-(N-ethylperfluoro-1-octanesulfonamido)-ethanol	< 0.025	0.025	09/30/09

<sup>&</sup>lt;sup>1</sup> The lowest calibration standard (0.005 ng/mL) was excluded from the calculation of the calibration curve because the average peak area of the method blanks was greater than 50% of the standard's peak area, resulting in an increased LOQ.

<sup>&</sup>lt;sup>2</sup> The High Field Matrix Spike recovery was outside the QC acceptance criteria of 50-150%, therefore the data is considered not reportable.

<sup>&</sup>lt;sup>3</sup> The Low Field Matrix Spike recovery was outside the QC acceptance criteria of 50-150%, therefore the data is considered not reportable.

<sup>&</sup>lt;sup>4</sup>The High Field Matrix Spike recovery was outside the acceptance criteria of 70-130%.

<sup>&</sup>lt;sup>5</sup> Outside the QC acceptance criteria of <20% relative percent difference (RPD) of duplicate samples

**Analytical Report** 

### **Summary of Fluorochemical Residues in Water Samples**

#### Sample ID: 08190950 MG11 Sample 10 Dup

Analyte	Result (ng/mL)	LOQ (ng/mL)	Date Analyzed
C8 Acid- Perfluorooctanoic Acid	< 0.025 <sup>1,4</sup>	0.025	09/15/09
PFOS- Perfluorooctanesulfonate	0.0265 <sup>2,3,5</sup>	0.010	10/09/09
FOSA- Perfluorooctane sulfonamide	< 0.010 <sup>3,4</sup>	0.010	09/15/09
MeFOSAA- N-methylperfluoro-1-octanesulfonamidoacetic Acid	< 0.025	0.025	09/30/09
EtFOSAA- N-ethylperfluoro-1-octanesulfonamidoacetic Acid	< 0.025	0.025	09/30/09
MeFOSE- 2-(N-methylperfluoro-1-octanesulfonamido)-ethanol	< 0.025	0.025	09/30/09
EtFOSE- 2-(N-ethylperfluoro-1-octanesulfonamido)-ethanol	< 0.025	0.025	09/30/09

<sup>&</sup>lt;sup>1</sup> The lowest calibration standard (0.005 ng/mL) was excluded from the calculation of the calibration curve because the average peak area of the method blanks was greater than 50% of the standard's peak area, resulting in an increased LOQ.

<sup>&</sup>lt;sup>2</sup> The High Field Matrix Spike recovery was outside the QC acceptance criteria of 50-150%, therefore the data is considered not reportable.

<sup>&</sup>lt;sup>3</sup> The Low Field Matrix Spike recovery was outside the QC acceptance criteria of 50-150%, therefore the data is considered not reportable.

<sup>&</sup>lt;sup>4</sup>The High Field Matrix Spike recovery was outside the acceptance criteria of 70-130%.

<sup>&</sup>lt;sup>5</sup> Outside the QC acceptance criteria of <20% relative percent difference (RPD) of duplicate samples



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**Analytical Report** 

### **Summary of Fluorochemical Residues in Water Samples**

### Sample ID: <u>08190945 LW13-16/LW13-19 Sample 12</u>

Analyte	Result (ng/mL)	LOQ (ng/mL)	Date Analyzed
C8 Acid- Perfluorooctanoic Acid	0.0610 <sup>1,2,5</sup>	0.025	09/15/09
PFOS- Perfluorooctanesulfonate	0.0677 <sup>2,3,5</sup>	0.010	10/09/09
FOSA- Perfluorooctane sulfonamide	< 0.010 <sup>2,3</sup>	0.010	09/15/09
MeFOSAA- N-methylperfluoro-1-octanesulfonamidoacetic Acid	< 0.025 <sup>4</sup>	0.025	09/30/09
EtFOSAA- N-ethylperfluoro-1-octanesulfonamidoacetic Acid	< 0.025	0.025	09/30/09
MeFOSE- 2-(N-methylperfluoro-1-octanesulfonamido)-ethanol	< 0.025	0.025	09/30/09
EtFOSE- 2-(N-ethylperfluoro-1-octanesulfonamido)-ethanol	< 0.025	0.025	09/30/09

<sup>&</sup>lt;sup>1</sup> The lowest calibration standard (0.005 ng/mL) was excluded from the calculation of the calibration curve because the average peak area of the method blanks was greater than 50% of the standard's peak area, resulting in an increased LOQ.

<sup>&</sup>lt;sup>2</sup> The Low Field Matrix Spike recovery was outside the QC acceptance criteria of 50-150%, therefore the data is considered not reportable.

<sup>&</sup>lt;sup>3</sup> The High Field Matrix Spike recovery was outside the acceptance criteria of 70-130%.

<sup>&</sup>lt;sup>4</sup>The Labortory Matrix Spike recovery was outside the acceptance criteria of 70-130%.

<sup>&</sup>lt;sup>5</sup> Outside the QC acceptance criteria of <20% relative percent difference (RPD) of duplicate samples



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## **Analytical Report**

### **Summary of Fluorochemical Residues in Water Samples**

Sample ID: 08190945 LW13-16/LW13-19 Sample 12 Dup

Analyte	Result (ng/mL)	LOQ (ng/mL)	Date Analyzed
C8 Acid- Perfluorooctanoic Acid	0.0433 <sup>1,2,5</sup>	0.025	09/15/09
PFOS- Perfluorooctanesulfonate	0.0440 <sup>2,3,5</sup>	0.010	10/09/09
FOSA- Perfluorooctane sulfonamide	< 0.010 <sup>2,3</sup>	0.010	09/15/09
MeFOSAA- N-methylperfluoro-1-octanesulfonamidoacetic Acid	< 0.025 <sup>4</sup>	0.025	09/30/09
EtFOSAA- N-ethylperfluoro-1-octanesulfonamidoacetic Acid	< 0.025	0.025	09/30/09
MeFOSE- 2-(N-methylperfluoro-1-octanesulfonamido)-ethanol	< 0.025	0.025	09/30/09
EtFOSE- 2-(N-ethylperfluoro-1-octanesulfonamido)-ethanol	< 0.025	0.025	09/30/09

<sup>&</sup>lt;sup>1</sup> The lowest calibration standard (0.005 ng/mL) was excluded from the calculation of the calibration curve because the average peak area of the method blanks was greater than 50% of the standard's peak area, resulting in an increased LOQ.

<sup>&</sup>lt;sup>2</sup> The Low Field Matrix Spike recovery was outside the QC acceptance criteria of 50-150%, therefore the data is considered not reportable.

<sup>&</sup>lt;sup>3</sup> The High Field Matrix Spike recovery was outside the acceptance criteria of 70-130%.

<sup>&</sup>lt;sup>4</sup>The Labortory Matrix Spike recovery was outside the acceptance criteria of 70-130%.

<sup>&</sup>lt;sup>5</sup> Outside the QC acceptance criteria of <20% relative percent difference (RPD) of duplicate samples



# **Analytical Report**

### **Summary of Fluorochemical Residues in Water Samples**

Sample ID: 1-CR388-0828-09 Sample 13

Analyte	Result (ng/mL)	LOQ (ng/mL)	Date Analyzed
C8 Acid- Perfluorooctanoic Acid	< 0.025 <sup>1,4</sup>	0.025	09/15/0 <del>9</del>
PFOS- Perfluorooctanesulfonate	0. <b>0526<sup>4</sup></b>	0.010	10/09/09
FOSA- Perfluorooctane sulfonamide	< 0.010 <sup>2,3</sup>	0.010	09/15/09
MeFOSAA- N-methylperfluoro-1-octanesulfonamidoacetic Acid	< 0.025	0.025	09/30/09
EtFOSAA- N-ethylperfluoro-1-octanesulfonamidoacetic Acid	< 0. <b>025</b>	0.025	09/30/09
MeFOSE- 2-(N-methylperfluoro-1-octanesulfonamido)-ethanol	< 0.025	0.025	09/30/09
EtFOSE- 2-(N-ethylperfluoro-1-octanesulfonamido)-ethanol	< 0.025	0.025	09/30/09

<sup>&</sup>lt;sup>1</sup> The lowest calibration standard (0.005 ng/mL) was excluded from the calculation of the calibration curve because the average peak area of the method blanks was greater than 50% of the standard's peak area, resulting in an increased LOQ.

<sup>&</sup>lt;sup>2</sup> The High Field Matrix Spike recovery was outside the QC acceptance criteria of 50-150%, therefore the data is considered not reportable.

<sup>&</sup>lt;sup>3</sup> The Low Field Matrix Spike recovery was outside the QC acceptance criteria of 50-150%, therefore the data is considered not reportable.

<sup>&</sup>lt;sup>4</sup>The High Field Matrix Spike recovery was outside the acceptance criteria of 70-130%.



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## **Analytical Report**

### **Summary of Fluorochemical Residues in Water Samples**

### Sample ID: 1-CR388-0828-09 Sample 13 Dup

Analyte	Result (ng/mL)	LOQ (ng/mL)	Date Analyzed
C8 Acid- Perfluorooctanoic Acid	< 0.025 <sup>1,4</sup>	0.025	09/15/09
PFOS- Perfluorooctanesulfonate	0.0487 <sup>4</sup>	0.010	10/09/09
FOSA- Perfluorooctane sulfonamide	< 0.010 <sup>2,3</sup>	0.010	09/15/09
MeFOSAA- N-methylperfluoro-1-octanesulfonamidoacetic Acid	< 0.025	0.025	09/30/09
EtFOSAA- N-ethylperfluoro-1-octanesulfonamidoacetic Acid	< 0.025	0.025	09/30/09
MeFOSE- 2-(N-methylperfluoro-1-octanesulfonamido)-ethanol	< 0.025	0.025	09/30/09
EtFOSE- 2-(N-ethylperfluoro-1-octanesulfonamido)-ethanol	< 0.025	0.025	09/30/09

<sup>&</sup>lt;sup>1</sup> The lowest calibration standard (0.005 ng/mL) was excluded from the calculation of the calibration curve because the average peak area of the method blanks was greater than 50% of the standard's peak area, resulting in an increased LOQ.

<sup>&</sup>lt;sup>2</sup> The High Field Matrix Spike recovery was outside the QC acceptance criteria of 50-150%, therefore the data is considered not reportable.

<sup>&</sup>lt;sup>3</sup> The Low Field Matrix Spike recovery was outside the QC acceptance criteria of 50-150%, therefore the data is considered not reportable.

<sup>&</sup>lt;sup>4</sup>The High Field Matrix Spike recovery was outside the acceptance criteria of 70-130%.



# **Analytical Report**

### **Summary of Fluorochemical Residues in Water Samples**

Sample ID: Trip Blank 081309

Analyte	Result (ng/mL)	LOQ (ng/mL)	Date Analyzed
C8 Acid- Perfluorooctanoic Acid	< 0.025 <sup>1</sup>	0.025	09/15/09
PFOS- Perfluorooctanesulfonate	< 0.010	0.010	10/09/09
FOSA- Perfluorooctane sulfonamide	< 0.010	0.010	09/15/09
MeFOSAA- N-methylperfluoro-1-octanesulfonamidoacetic Acid	< 0.025	0.025	09/30/09
EtFOSAA- N-ethylperfluoro-1-octanesulfonamidoacetic Acid	< 0.025	0. <b>025</b>	09/30/09
MeFOSE- 2-(N-methylperfluoro-1-octanesulfonamido)-ethanol	< 0.025	0.025	09/30/09
EtFOSE- 2-(N-ethylperfluoro-1-octanesulfonamido)-ethanol	< 0.025	0.025	09/30/09

<sup>&</sup>lt;sup>1</sup> The lowest calibration standard (0.005 ng/mL) was excluded from the calculation of the calibration curve because the average peak area of the method blanks was greater than 50% of the standard's peak area, resulting in an increased LOQ.



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# **Analytical Report**

#### Summary of Fluorochemical Residues in Water Samples by LC/MS/MS

	PFOA Perfluoroactanoic Acid		
	Analyte	Analyte	Analyte
	Found	Found	Found
Sample ID	(ng/mL)	(ng/mL)	(ng/mL)
08130935 LW 12-5/LW 12-6 Sample 1	< 0.025 <sup>1,2</sup>	0.012 <b>0</b> <sup>2,3</sup>	< 0.010 <sup>1,4</sup>
08130935 LW 12-5/LW 12-6 Sample 1 Dup	< 0.025 <sup>1,2</sup>	< 0.010 <sup>1,1</sup>	< 0.010 <sup>3,4</sup>
08130936 LW 12-5/LW 12-6 Sample 2	< 0.025 <sup>1</sup>	< 0.010 <sup>1</sup>	< 0.010 <sup>1,4</sup>
08130936 LW 12-5/LW 12-6 Sample 2 Dup	< 0.025¹	< 0.010 <sup>4</sup>	< 0.010 <sup>4.4</sup>
08130938 LW 12-5/LW 12-6 Sample 3	< 0.025 <sup>1,2</sup>	0.012644	< 0.010 <sup>4,4</sup>
08130938 LW 12-5/LW 12-6 Sample 3 Dup	< 0.025 <sup>1,2</sup>	< 0.010 <sup>2,≜</sup>	< 0.010 <sup>1,4</sup>
08130933 MG 17-3 Sample 4	< 0.0251	< 0.010 <sup>3</sup>	< 0.010 <sup>1,4</sup>
08130933 MG 17-3 Sample 4 Dup	< 0.025¹	< 0.0103	< 0.010 <sup>1,4</sup>
08130932 MG 17-3 Sample 5	< 0.025 <sup>1</sup>	0.01731.7	< 0.010 <sup>8</sup>
08130932 MG 17-3 Sample 5 Dup	< 0.025 <sup>1</sup>	0.0116 <sup>1,7</sup>	< 0.010 <sup>5</sup>
Trio Blank 061309	< 0.025	< 0.01 <b>0</b>	< 0.010
08180951 MG11 Sample 6	< 0.0251	0.0185 <sup>2,8,7</sup>	< 0.010 <sup>8</sup>
08180951 MG11 Sample 6 Dup	< 0.025 <sup>1</sup>	0.0105 <sup>2,4,7</sup>	< 0.010 <sup>5</sup>
08180948 MG11 Sample 7	< 0.025 <sup>1</sup>	0.0215*	< 0.010 <sup>6</sup>
08180948 MG11 Sample 7 Dup	0.02781	0.0196	< 0.010 <sup>3</sup>
08140928 LW 17-4/LW 17-5 Sample 8	< 0.025 <sup>1,2</sup>	0.0144 <sup>2,3</sup>	< 0.010 <sup>6</sup>
08140928 LW 17-4/LW 17-5 Sample 8 Dup	< 0.025 <sup>1,2</sup>	< 0.010 <sup>3,3</sup>	< 0.010 <sup>5</sup>
08180949 MG11 Sample 9	< 0.025 <sup>1,3</sup>	0.0197 <sup>1,3</sup>	< 0.010 <sup>1,4</sup>
08180949 MG11 Sample 9 Dup	< 0.0251.3	0.02152.3	< 0.010 <sup>1,4</sup>
08190950 MG11 Sample 10	< 0.0251,3	0.0446 <sup>5,7</sup>	< 0.010 <sup>1.4</sup>
08190950 MG11 Sample 10 Dup	< 0.025 <sup>1,3</sup>	0.0265 <sup>5,7</sup>	< 0.010 <sup>3.4</sup>
08190945 LW13-16/LW 13-19 Sample 12	0.06101,4.7	0.0677 <sup>3,4,7</sup>	< 0.010 <sup>3,4</sup>
08190945 LW13-16/LW 13-19 Sample 12 Dup	0.04331.47	0.0440 <sup>3,4,7</sup>	< 0.010 <sup>1,4</sup>
1-CR388-0828-09 Sample 13	د 0.025	0.05261	< 0.010 <sup>8</sup>
1-CR388-0628-09 Sample 13 Dup	< 0.025 <sup>1,3</sup>	0.04871	< 0.010 <sup>6</sup>

<sup>&</sup>lt;sup>1</sup> The lowest calibration standard (0.005 ng/mL) was excluded from the calculation of the calibration curve because the average peak area of the method blanks was greater than 50% of the standard's peak area, resulting in an increased LOQ.

<sup>&</sup>lt;sup>1</sup> The Low Field Matrix Spike recovery was outside the acceptance criteria of 70-130%.

 $<sup>^{\</sup>rm 1}{\rm The~High~Field~Matrix~Splike~recovery~was~outside~the~acceptance~criteria~of~70-130%.}$ 

<sup>&</sup>lt;sup>4</sup> The Low Field Matrix Spike recovery was outside the QC acceptance criteria of 50-150%, therefore the data is considered not reportable.

<sup>&</sup>lt;sup>5</sup> The High and Low Field Matrix Spike recovery were outside the QC acceptance criteria of 50-150%, therefore the data is considered not reportable.

<sup>&</sup>lt;sup>6</sup> The High Field Matrix recovery was outside the QC acceptance criteria of 50-150%. The Low Field Matrix recovery was within the acceptance criteria of 50-150% and the spiking concentration is within the Exhibit C criteria of 0.5 to 10 times endogenous sample levels, this data is considered reportable.

<sup>&</sup>lt;sup>7</sup> Outside the QC acceptance criteria of < 20% relative percent difference (RPD) of duplicate samples



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# **Analytical Report**

## Summary of Fluorochemical Residues in Water Samples by LC/MS/MS

MeFOSAA EtFOSAA MeFOSE EtFOSE

	Analyte Found	Analyte Found	Analyte Found	Analyte Found
Sample ID	(ng/mL)	(ng/mL)	(ng/mL)	(ng/mL)
08130935 LW 12-5/LW 12-6 Sample 1	< 0.025 <sup>1</sup>	< 0.025	< 0.025	< 0.025
08130935 LW 12-5/LW 12-6 Sample 1 Dup	< 0.025 <sup>1</sup>	< 0.025	< 0.025	< 0.025
08130936 LW 12-5/LW 12-6 Sample 2	< 0.025	< 0.025	< 0.025	< 0.025
08130936 LW 12-5/LW 12-6 Sample 2 Dup	< 0.025	< 0.025	< 0.025	< 0.025
08130938 LW 12-5/LW 12-6 Sample 3	< 0.025	< 0.025	< 0.025	< 0.025
08130938 LW 12-5/LW 12-6 Sample 3 Dup	< 0.025	< 0.025	< 0.025	< 0.025
08130933 MG 17-3 Sample 4	< 0.025	< 0.025	< 0.025	< 0.025
08130933 MG 17-3 Sample 4 Dup	< 0.025	< 0.025	< 0.025	< 0.025
08130932 MG 17-3 Sample 5	< 0.025	< 0.025	< 0.025	< 0.025
08130932 MG 17-3 Sample 5 Dup	< 0.025	< 0.025	< 0.025	< 0.025
Trip Blank	< 0.025	< 0.025	< 0.025	< 0.025
08180951 MG11 Sample 6	< 0.025	< 0.025	< 0.025	< 0.025
08180951 MG11 Sample 6 Dup	< 0.025	< 0.025	< 0.025	< 0.025
08180948 MG11 Sample 7	< 0.025	< 0.025	< 0.025	< 0.025
08180948 MG11 Sample 7 Dup	< 0.025	< 0.025	< 0.025	< 0.025
08140928 LW 17-4/LW 17-5 Sample 8	< 0.025	< 0.025	< 0.025	< 0.025
08140928 LW 17-4/LW 17-5 Sample 8 Dup	< 0.025	< 0.025	< 0.025	< 0.025
08180949 MG11 Sample 9	< 0.025	< 0.025	< 0.025	< 0.025
08180949 MG11 Sample 9 Dup	< 0.025	< 0.025	< 0.025	< 0.025
08190950 MG11 Sample 10	< 0.025	< 0.025	< 0.025	< 0.025
08190950 MG11 Sample 10 Dup	< 0.025	< 0.025	< 0.025	< 0.025
08190945 LW13-16/LW 13-19 Sample 12	< 0.025 <sup>1</sup>	< 0.025	< 0.025	< 0.025
08190945 LW13-16/LW 13-19 Sample 12 Dup	< 0.025 <sup>1</sup>	< 0.025	< 0.025	< 0.025
1-CR388-0828-09 Sample 13	< 0.025	< 0.025	< 0.025	< 0.025
1-CR388-0828-09 Sample 13 Dup	< 0.025	< 0.025	< 0.025	< 0.025

<sup>&</sup>lt;sup>1</sup> The Laboratory Matrix Spike recovery was outside the acceptance criteria of 70-130%.